

SEQUENCE LISTING

<110> Sprecher, Cindy A.
Kisiel, Walter
Foster, Donald C.

<120> NOVEL HUMAN KUNITZ-TYPE INHIBITORS AND
METHODS RELATING THERETO

<130> 93-14D4

<150> US 09/904,621

<151> 2001-07-13

<150> US 09/265,627

<151> 1999-03-09

<150> US 08/457,887

<151> 1995-06-01

<150> US 08/147,710

<151> 1993-11-05

<160> 15

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 979

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (39)...(746)

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Met Asp Pro Ala Arg Pro
1 5

ctg ggg ctg tgc att ctg ctg ctt ttc ctg acg gag gct gca ctg ggc 104
Leu Gly Leu Ser Ile Leu Leu Leu Phe Leu Thr Glu Ala Ala Leu Gly
10 15 20

gat gct gct cag gag cca aca gga aat aac gcg gag atc tgt ctc ctg 152
Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn Ala Glu Ile Cys Leu Leu
25 30 35

ccc cta gac tac gga ccc tgc cgg gcc cta ctt ctc cgt tac tac tac 200
Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu Leu Leu Arg Tyr Tyr Tyr
40 45 50

gac agg tac acg cag agc tgc cgc cag ttc ctg tac ggg ggc tgc gag 248
Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe Leu Tyr Gly Gly Cys Glu
55 60 65 70

ggc aac gcc aac aat ttc tac acc tgg gag gct tgc gac gat gct tgc 296
Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu Ala Cys Asp Asp Ala Cys
75 80 85

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tgg agg ata gaa aaa gtt ccc aaa gtt tgc cgg ctg caa gtg agt gtg 344
Trp Arg Ile Glu Lys Val Pro Lys Val Cys Arg Leu Gln Val Ser Val
          90                      95                      100

gac gac cag tgt gag ggg tcc aca gaa aag tat ttc ttt aat cta agt 392
Asp Asp Gln Cys Glu Gly Ser Thr Glu Lys Tyr Phe Phe Asn Leu Ser
          105                      110                      115

tcc atg aca tgt gaa aaa ttc ttt tcc ggt ggg tgt cac cgg aac cgg 440
Ser Met Thr Cys Glu Lys Phe Phe Ser Gly Gly Cys His Arg Asn Arg
          120                      125                      130

att gag aac agg ttt cca gat gaa gct act tgt atg ggc ttc tgc gca 488
Ile Glu Asn Arg Phe Pro Asp Glu Ala Thr Cys Met Gly Phe Cys Ala
          135                      140                      145                      150

cca aag aaa att cca tca ttt tgc tac agt cca aaa gat gag gga ctg 536
Pro Lys Lys Ile Pro Ser Phe Cys Tyr Ser Pro Lys Asp Glu Gly Leu
          155                      160                      165

tgc tct gcc aat gtg act cgc tat tat ttt aat cca aga tac aga acc 584
Cys Ser Ala Asn Val Thr Arg Tyr Tyr Phe Asn Pro Arg Tyr Arg Thr
          170                      175                      180

tgt gat gct ttc acc tat act ggc tgt gga ggg aat gac aat aac ttt 632
Cys Asp Ala Phe Thr Tyr Thr Gly Cys Gly Gly Asn Asp Asn Asn Phe
          185                      190                      195

gtt agc agg gag gat tgc aaa cgt gca tgt gca aaa gct ttg aaa aag 680
Val Ser Arg Glu Asp Cys Lys Arg Ala Cys Ala Lys Ala Leu Lys Lys
          200                      205                      210

aaa aag aag atg cca aag ctt cgc ttt gcc agt aga atc cgg aaa att 728
Lys Lys Lys Met Pro Lys Leu Arg Phe Ala Ser Arg Ile Arg Lys Ile
          215                      220                      225                      230

cgg aag aag caa ttt taa acattcttaa tatgtcatct tgtttgtctt 776
Arg Lys Lys Gln Phe *
          235

tatggcttat ttgcctttat ggttgatat gaagaataat atgacagcat gaggaacaa 836
atcattgggtg atttattcac cagtttttat taataacaagt cactttttca aaaatttgga 896
tttttttata tataactagc tgctattcaa atgtgagtct accattttta atttatgggt 956
caactgtttg tgagactgaa ttc 979

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<210> 2
<211> 235
<212> PRT
<213> Homo sapiens

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Thr Glu Ala Ala Leu Gly Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn
          20          25          30
Ala Glu Ile Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu
          35          40          45
Leu Leu Arg Tyr Tyr Tyr Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe
          50          55          60
Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu
          65          70          75          80
Ala Cys Asp Asp Ala Cys Trp Arg Ile Glu Lys Val Pro Lys Val Cys

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				85					90					95				
Arg	Leu	Gln	Val	Ser	Val	Asp	Asp	Gln	Cys	Glu	Gly	Ser	Thr	Glu	Lys			
			100					105						110				
Tyr	Phe	Phe	Asn	Leu	Ser	Ser	Met	Thr	Cys	Glu	Lys	Phe	Phe	Ser	Gly			
		115					120						125					
Gly	Cys	His	Arg	Asn	Arg	Ile	Glu	Asn	Arg	Phe	Pro	Asp	Glu	Ala	Thr			
	130					135					140							
Cys	Met	Gly	Phe	Cys	Ala	Pro	Lys	Lys	Ile	Pro	Ser	Phe	Cys	Tyr	Ser			
145					150					155					160			
Pro	Lys	Asp	Glu	Gly	Leu	Cys	Ser	Ala	Asn	Val	Thr	Arg	Tyr	Tyr	Phe			
			165						170					175				
Asn	Pro	Arg	Tyr	Arg	Thr	Cys	Asp	Ala	Phe	Thr	Tyr	Thr	Gly	Cys	Gly			
		180						185					190					
Gly	Asn	Asp	Asn	Asn	Phe	Val	Ser	Arg	Glu	Asp	Cys	Lys	Arg	Ala	Cys			
	195						200					205						
Ala	Lys	Ala	Leu	Lys	Lys	Lys	Lys	Met	Pro	Lys	Leu	Arg	Phe	Ala				
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Ser	Arg	Ile	Arg	Lys	Ile	Arg	Lys	Lys	Gln	Phe								
225					230					235								

<210> 3
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<220>
 <223> Oligonucleotide ZC4792

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<210> 4
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide ZC6281

<400> 4
 acagatctcc gcgttatatttc ctgttggtc 30

<210> 5
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Clone M-2161

<400> 5
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<210> 6
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> M-2177

<400> 6
 gaaacctcta gacttatatc ctccagcaag catc 34

<210> 7
 <211> 235
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (77)...(235)

<400> 7
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 ataaacgacc aaaaga atg aag gct gtt ttc ttg gtt ttg tcc ttg atc gga 112
 Met Lys Ala Val Phe Leu Val Leu Ser Leu Ile Gly
 1 5 10

ttc tgc tgg gcc caa cca gtc act ggc gat gaa tca tct gtt gag att 160
 Phe Cys Trp Ala Gln Pro Val Thr Gly Asp Glu Ser Ser Val Glu Ile
 15 20 25

ccg gaa gag tct ctg atc atc gct gaa aac acc act ttg gct aac gtc 208
 Pro Glu Glu Ser Leu Ile Ile Ala Glu Asn Thr Thr Leu Ala Asn Val
 30 35 40

gcc atg gct gag aga ttg gag aag aga 235
 Ala Met Ala Glu Arg Leu Glu Lys Arg
 45 50

<210> 8
 <211> 53
 <212> PRT
 <213> Homo sapiens

<400> 8
 Met Lys Ala Val Phe Leu Val Leu Ser Leu Ile Gly Phe Cys Trp Ala
 1 5 10 15
 Gln Pro Val Thr Gly Asp Glu Ser Ser Val Glu Ile Pro Glu Glu Ser
 20 25 30
 Leu Ile Ile Ala Glu Asn Thr Thr Leu Ala Asn Val Ala Met Ala Glu
 35 40 45
 Arg Leu Glu Lys Arg
 50

<210> 9
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nor-1478

<400> 9
 gtaaaacgac ggccagt 17

<210> 10
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> NOR-2523

<400> 10
 tctcttctcc aatctctcag c 21

<210> 11
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> M-2162

<400> 11
 cttttactct agacttactt tgggtgcgcag aagcc 35

<210> 12
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal

<400> 12
 Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn
 1 5 10

<210> 13
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> N-terminal

<400> 13
 Ala Gln Glu Pro Thr Gly Asn Asn
 1 5

<210> 14
 <211> 165
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> variation
 <222> (0)...(0)
 <223> Kunitz domain

<221> variation
 <222> (1)...(3)
 <223> Codon-1 Wherein the nucleotide triplet 1-3
 encodes any amino acid except cysteine.

<221> variation
 <222> (4)...(6)
 <223> Codon-2 Wherein the nucleotide triplet 4-6

encodes any amino acid except cysteine.

<221> variation

<222> (160)...(162)

<223> Codon-54 Wherein the nucleotide triplet 160-162
encodes any amino acid except cysteine.

<221> variation

<222> (163)...(165)

<223> Codon-55 Wherein the nucleotide triplet 163-165
encodes any amino acid except cysteine.

<400> 14

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nnnnnntgtc tcttgcccct agactacgga ccttgccggg ccctacttct ccgttactac 60
tacgacaggt acacgcagag ctgccgccag ttcctgtacg ggggctgcga gggcaacgcc 120
aacaatttct acacctggga ggcttgcgac gatgcttgcg nnnnnn 165
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<210> 15

<211> 55

<212> PRT

<213> Artificial Sequence

<220>

<223> Kunitz Domain

<221> VARIANT

<222> (1)...(2)

<223> aa1-2 Wherein each amino acid from position 1 to
2 is individually any amino acid except cysteine.

<221> VARIANT

<222> (54)...(55)

<223> aa54-55 Wherein each amino acid from position 54
to 55 is individually any amino acid except
cysteine.

<400> 15

```
Xaa Xaa Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu Leu
 1          5          10          15
Leu Arg Tyr Tyr Tyr Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe Leu
          20          25          30
Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu Ala
          35          40          45
Cys Asp Asp Ala Cys Xaa Xaa
 50          55
```